

Prevalence and Characteristics of Autism Spectrum Disorder Among Children Aged 8 Years — Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States, 2020

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Abstract

Problem/Condition Autism spectrum disorder (ASD). Period Covered 2020. Description of System The Autism and Developmental Disabilities Monitoring (ADDM) Network is an active surveillance program that provides estimates of the prevalence of ASD among children aged 8 years. In 2020, there were 11 ADDM Network sites across the United States (Arizona, Arkansas, California, Georgia, Maryland, Minnesota, Missouri, New Jersey, Tennessee, Utah, and Wisconsin). To ascertain ASD among children aged 8 years, ADDM Network staff review and abstract developmental evaluations and records from community medical and educational service providers. A child met the case definition if their record documented 1) an ASD diagnostic statement in an evaluation, 2) a classification of ASD in special education, or 3) an ASD International Classification of Diseases (ICD) code. Results For 2020, across all 11 ADDM sites, ASD prevalence per 1,000 children aged 8 years ranged from 23.1 in Maryland to 44.9 in California. The overall ASD prevalence was 27.6 per 1,000 (one in 36) children aged 8 years and was 3.8 times as prevalent among boys as among girls (43.0 versus 11.4). Overall, ASD prevalence was lower among non-Hispanic White children (24.3) and children of two or more races (22.9) than among non-Hispanic Black or African American (Black), Hispanic, and non-Hispanic Asian or Pacific Islander (A/PI) children (29.3, 31.6, and 33.4 respectively). ASD prevalence among non-Hispanic American Indian or Alaska Native (AI/AN) children (26.5) was similar to that of other racial and ethnic groups. ASD prevalence was associated with lower household income at three sites, with no association at the other sites. Across sites, the ASD prevalence per 1,000 children aged 8 years based exclusively on documented ASD diagnostic statements was 20.6 (range = 17.1 in Wisconsin to 35.4 in California). Of the 6,245 children who met the ASD case definition, 74.7% had a documented diagnostic statement of ASD, 65.2% had a documented ASD special education classification, 71.6% had a documented ASD ICD code, and 37.4% had all three types of ASD indicators. The median age of earliest known ASD diagnosis was 49 months and ranged from 36 months in California to 59 months in Minnesota. Among the 4,165 (66.7%) children with ASD with information on cognitive ability, 37.9% were classified as having an intellectual disability. Intellectual disability was present among 50.8% of Black, 41.5% of A/PI, 37.8% of two or more races, 34.9% of Hispanic, 34.8% of AI/AN, and 31.8% of White children with ASD. Overall, children with intellectual disability had earlier median ages of ASD diagnosis (43 months) than those without intellectual disability (53 months). Interpretation For 2020, one in 36 children aged 8 years (approximately 4% of boys and 1% of girls) was estimated to have ASD. These estimates are higher than previous ADDM Network estimates during 2000–2018. For the first time among children aged 8 years, the prevalence of ASD was lower among White children than among other racial and ethnic groups, reversing the direction of racial and ethnic differences in ASD prevalence observed in the past. Black children with ASD were still more likely than White children with ASD to have a co-occurring intellectual disability. Public Health Action The continued increase among children identified with ASD, particularly among non-White children and girls, highlights the need for enhanced infrastructure to provide equitable diagnostic, treatment, and support services for all children with ASD. Similar to previous reporting periods, findings varied considerably across network sites, indicating the need for additional research to understand the nature of such differences and potentially apply successful identification strategies across states.